

# WHELEN<sup>®</sup>

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## Installation Guide: PierceAlert™ Retro-Fit for Edge® Series Lightbars (Kit Number 01-0462199-00)

### Safety First

This document provides all the necessary information to allow your Whelen product to be properly and safely installed. Before beginning the installation and/or operation of your new product, the installation technician and operator must read this manual completely. Important information is contained herein that could prevent serious injury or damage.

- Proper installation of this product requires the installer to have a good understanding of automotive electronics, systems and procedures.
- If mounting this product requires drilling holes, the installer **MUST** be sure that no vehicle components or other vital parts could be damaged by the drilling process. Check both sides of the mounting surface before drilling begins. Also de-burr any holes and remove any metal shards or remnants. Install grommets into all wire passage holes.
- If this manual states that this product may be mounted with suction cups, magnets, tape or Velcro®, clean the mounting surface with a 50/50 mix of isopropyl alcohol and water and dry thoroughly.
- Do not install this product or route any wires in the deployment area of your air bag. Equipment mounted or located in the air bag deployment area will damage or reduce the effectiveness of the air bag, or become a projectile that could cause serious personal injury or death. Refer to your vehicle owner's manual for the air bag deployment area. The User/Installer assumes full responsibility to determine proper mounting location, based on providing ultimate safety to all passengers inside the vehicle.
- For this product to operate at optimum efficiency, a good electrical connection to chassis ground must be made. The recommended procedure requires the product ground wire to be connected directly to the **NEGATIVE (-)** battery post.
- If this product uses a remote device to activate or control this product, make sure that this control is located in an area that allows both the vehicle and the control to be operated safely in any driving condition.
- Do not attempt to activate or control this device in a hazardous driving situation.
- This product contains either strobe light(s), halogen light(s), high-intensity LEDs or a combination of these lights. Do not stare directly into these lights. Momentary blindness and/or eye damage could result.
- Use only soap and water to clean the outer lens. Use of other chemicals could result in premature lens cracking (crazing) and discoloration. Lenses in this condition have significantly reduced effectiveness and should be replaced immediately. Inspect and operate this product regularly to confirm its proper operation and mounting condition. Do not use a pressure washer to clean this product.
- It is recommended that these instructions be stored in a safe place and referred to when performing maintenance and/or reinstallation of this product.
- **FAILURE TO FOLLOW THESE SAFETY PRECAUTIONS AND INSTRUCTIONS COULD RESULT IN DAMAGE TO THE PRODUCT OR VEHICLE AND/OR SERIOUS INJURY TO YOU AND YOUR PASSENGERS!**

**For warranty information regarding this product, visit [www.whelen.com/warranty](http://www.whelen.com/warranty)**

**To mount the PierceAlert™ in front of the power supply on a 48" and 52" lightbar.**

1. Disconnect the lightbar from its power source and wait at least 15 minutes before proceeding any further
2. Remove both endcaps from the extrusion.
3. Slide all lenses and dividers out of the extrusion.
4. Remove the Phillips-head screws or stand-offs (depending on which of these your lightbar is equipped with) from the power supply.
5. Remove the power supply from the extrusion. Do not disconnect the power supply from the lightbar harness cables.
6. Remove the filler panels from either end of the power supply mounting area. Please note that not all lightbars will have these filler panels.
7. Remove the two (2) power supply mounting brackets by rotating them 90 degrees.

**Note: If one of these brackets contain a fuse, do not remove that bracket!**

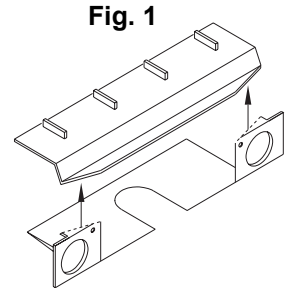
8. If one of the power supply mounting brackets contains a fuse, remove the two Phillips-head screws that secure the adjoining reflector to it's mounting bracket.
9. Remove the existing reflector mounting bracket from the extrusion by rotating it 90 degrees.
10. Slide the power supply mounting bracket with the fuse into the area where the reflector mounting bracket was located. This will replace the old reflector mounting bracket.
11. The next step is dependent upon how your lightbar is equipped:

If your lightbar has a drip cover attached to the power supply, remove the screws that secure this cover to the power supply (Fig. 3). Remove and discard the drip cover and return the screws to their original position in the power supply.

**or**

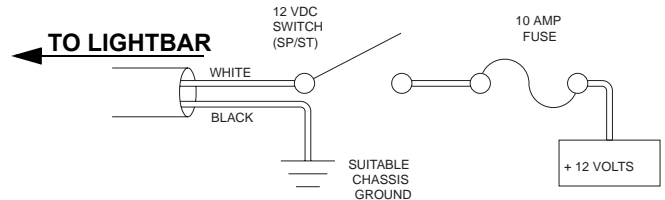
If your lightbar has a protective housing fastened to the extrusion behind the power supply, trim this housing as shown in Fig. 1.

12. Remove the reflector assembly that is located above the cable exit hole in the extrusion.
13. If a matrix board is not located near the cable access hole, skip to step #16.
14. Connect one end of the PierceAlert-to-Matrix™ harness cable (supplied) into an available option port on the matrix board.
15. Route this harness cable to the PierceAlert mounting area.
16. If there are no available option ports on the matrix board, or if there is no matrix board present, route the two-conductor harness cable up through the cable access hole, into the extrusion and directly to the PierceAlert mounting location.
17. Route this two-conductor cable along the same path as the existing input cable for your lightbar, and connect it to either an existing switch-head or to a user supplied switch. Refer to the wiring diagram for details.
18. Return the reflector to its mounting area in front of the cable access hole and secure with the original screws.



**Fig. 1**

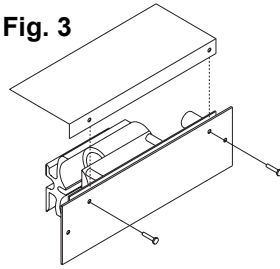
**Fig. 2**



19. Now secure the reflector (referenced in steps 9 & 10) to its new mounting bracket with it's original screws.
20. Install the metal (not plastic), recessed power supply mounting brackets that are included in this kit. Be sure that these are positioned in the power supply mounting area.

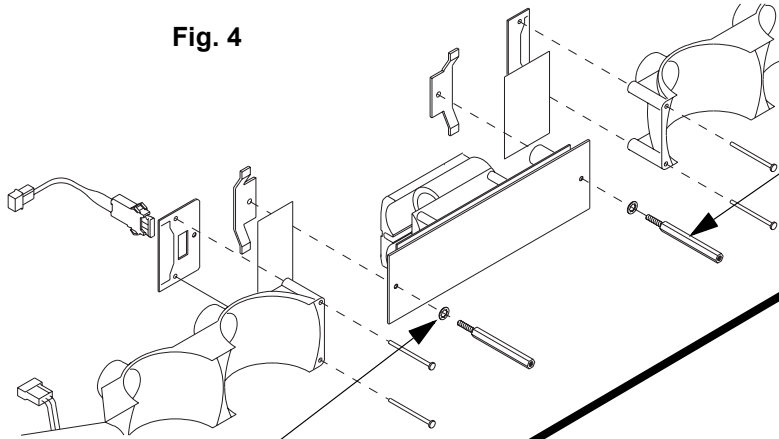
21. Now examine the heat sink on your power supply. If it is the same as the heat sink shown in Fig.3, it must be removed and replaced with the heat sink included with this kit. If the existing heat sink is the same as the one included with this kit, do not replace it.
22. Using the long stand-offs and the internal-tooth lock washers included with this kit, remount the power supply in the extrusion (Fig. 4). Do not allow any harness wires to be pinched between the power supply and the extrusion!
23. Slide the lens spacer (included) shown in Fig. 5, into the bottom lens channel of the extrusion. Position this spacer directly in front of the power supply.

**Fig. 3**



24. Slide the cover seal (included) into the upper lens channel of the extrusion. Position this seal directly in front of the power supply.
25. Plug the PierceAlert™ into the two-conductor that was installed earlier (either connected to the matrix board or routed into the vehicle).
26. Return all lenses and dividers to their original locations.
27. Position the PierceAlert in front of the power supply. Insert the alignment tabs into both the upper and lower lens channels. Be sure the lenses on either end of the PierceAlert are behind the PierceAlert housing (Fig. 6).
28. Secure the PierceAlert to the power supply stand-offs with the supplied Phillips-head screws. *Do not tighten these screws yet!*
29. Install the endcaps on the extrusion and tighten all of the endcap mounting screws.
30. Tighten the PierceAlert mounting screws firmly.

**Fig. 4**



**Fig. 5**

**COVER SEAL**

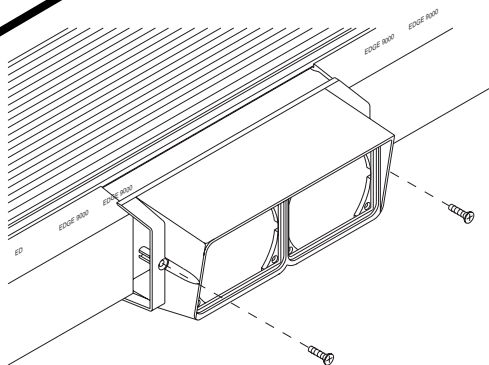
**EXTRUSION**

**MATRIX BOARD**

**INPUT CABLE**

**LENS SPACER**

**Fig. 6**

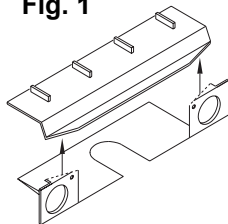


## To mount the PierceAlert™ in front of the power supply on a 46" Lighbar.

1. Disconnect the lightbar from its power source and wait at least 15 minutes before proceeding any further
2. Remove both endcaps from the extrusion.
3. Slide all lenses and dividers out of the extrusion.
4. Remove the Phillips-head screws or stand-offs (depending on which of these your lightbar is equipped with) from the power supply.
5. Remove the power supply from the extrusion. Do not disconnect the power supply from the lightbar harness cables.
6. Remove the two, inboard, Phillips-head screws from the lighthead located on either side of the power supply mounting area. Rotate the power supply/lighthead mounting brackets and remove them from the extrusion. If one of the power supply/lighthead mounting brackets contains a fuse block, separate this fuse block from the bracket before removing the bracket from the extrusion.
7. The next step is dependent upon how your lightbar is equipped:

If your lightbar has a drip cover attached to the power supply, remove the screws that secure this cover to the power supply. Remove and discard the drip cover and return the screws to their original position in the power supply.

**Fig. 1**



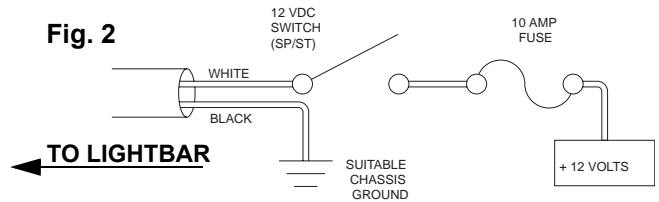
or

If your lightbar has a protective housing fastened to the extrusion behind the power supply, trim this housing as shown in Fig. 1.

8. Remove the reflector assembly that is located above the cable access hole in the extrusion.
9. If a matrix board is not located near the cable access hole, skip to step 12.
10. Connect one end of the PierceAlert-to-Matrix™ harness cable (supplied) into an available option port on the matrix board.
11. Route this harness cable to the PierceAlert mounting area.
12. If there are no available option ports on the matrix board, or if there is no matrix board present, route the two-conductor harness cable up through the cable access hole, into the extrusion and directly to the PierceAlert mounting location.
13. Route this two-conductor cable along the same path as the existing input cable for your lightbar, and connect it to either an existing switch-head or to a user supplied switch. Refer to the wiring diagram for details.

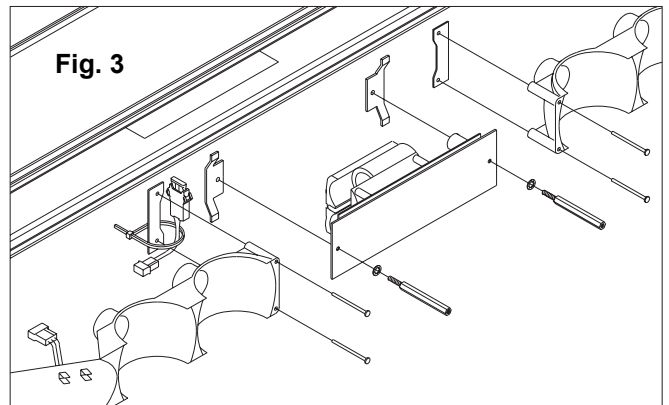
14. Return the reflector to its mounting area in front of the cable access hole and secure with the original screws.
15. Now secure the reflector (referenced in steps 9 & 10) to its new mounting bracket with its original screws.

**Fig. 2**



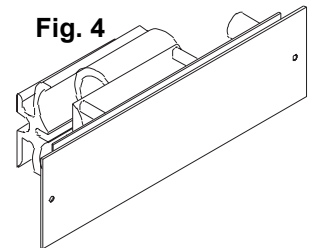
16. Using the supplied tie-wrap, secure the fuse block to the new lighthead bracket (See Fig. 3).
17. Install the new lighthead brackets in the extrusion as shown in Fig.3. **Note: Be sure to plug the fuse block back into the wiring harness before continuing.**

**Fig. 3**



18. Install the metal (not plastic), recessed power supply mounting brackets that are included in this kit. Be sure that these are positioned in the power supply mounting area.
19. Now examine the heat sink on your power supply. If it is the same as the heat sink shown in Fig. 4, it must be removed and replaced with the heat sink included with this kit. If the existing heat sink is the same as the one included with this kit, do not replace it.

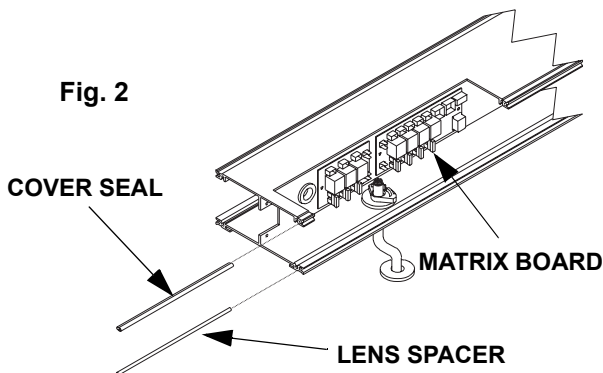
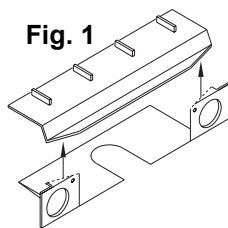
**Fig. 4**



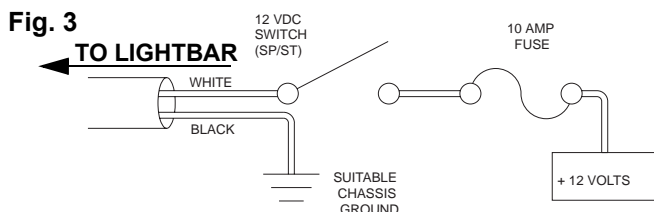
20. Using the long stand-offs and the internal-tooth lock washers included with this kit (Fig. 3), remount the power supply in the extrusion. Do not allow any harness wires to be pinched between the power supply and the extrusion!
21. Slide the lens spacer (included) into the bottom lens channel of the extrusion. Position this spacer directly in front of the power supply.

**To mount the PierceAlert™ on a 46", 48', 52" or larger lightbar (but NOT on the same side of the extrusion as the power supply).**

1. Disconnect the lightbar from its power source and wait at least 15 minutes before proceeding any further.
2. Remove both endcaps from the extrusion.
3. Slide all lenses and dividers out of the extrusion.
4. If your lightbar has a protective housing fastened to the extrusion behind the power supply, trim this housing as shown in Fig. 1.
5. Remove the reflector assembly that is located above the cable access hole in the extrusion.
6. If a matrix board is not located near the cable access hole, skip to step 9.
7. Connect one end of the PierceAlert-to-Matrix™ harness cable (supplied) into an available option port on the matrix board.



8. Route this harness cable to the PierceAlert mounting area.
9. If there are no available option ports on the matrix board, or if there is no matrix board present, route the two-conductor harness cable up through the cable access hole, into the extrusion and directly to the PierceAlert mounting location.
10. Route this two-conductor cable along the same path as the existing input cable for your lightbar, and connect it to either an existing switch-head or to a user supplied switch. Refer to the wiring diagram for details.



11. Return the reflector to its mounting area in front of the cable access hole and secure with the original screws.
12. Install the plastic (not metal), power supply mounting brackets that are included in this kit (if your lightbar is not already equipped with these brackets). Be sure that these are positioned in the PierceAlert mounting area.
13. Locate the short stand-offs and the Internal-Tooth Lock Washers included with this kit. Insert the lock washer around the threaded shaft of the stand-off and screw the stand off into the plastic power supply mounting bracket.
14. Slide the lens spacer (included) into the bottom lens channel of the extrusion. Position this spacer directly in front of the power supply.
15. Slide the cover seal (included) into the upper lens channel of the extrusion. Position this seal directly in front of the power supply.
16. Plug the PierceAlert into the two-conductor that was installed earlier (either connected to the matrix board or routed into the vehicle).
17. Return all lenses and dividers to their original locations.
18. Position the PierceAlert in it's mounting area in the extrusion. Insert the alignment tabs into both the upper and lower lens channels. Be sure the lenses on either end of the PierceAlert are behind the PierceAlert housing.
19. Secure the PierceAlert to the stand-offs with the supplied Phillips-head screws. *Do not tighten these screws yet!*
20. Install the endcaps on the extrusion and tighten all of the endcap mounting screws.
21. Tighten the PierceAlert mounting screws firmly.

**Retro-Fit Parts List (Kit PN# 01-0462199-00)**

<u>QTY</u>	<u>DESCRIPTION</u>	<u>PART NUMBER</u>
1	Cover Seal	38-0521204-00
1	Lens Spacer	22-0121135-00
2	Internal-Tooth Lock Washer	16-1021220-45
2	P.Supply Bracket	07-241205-000
1	Baseplate Assembly	02-0382477-00
2	Long Stand-Off	20-67121040A9
2	Short Stand-Off	20-48121040A9
1	Input Harness Assembly	02-0221971-00
1	Input Cable Assembly	02-0241057-00
1	Housing Assembly (Clear)	02-0362196CCC
2	#10-24 x 1 1/2" P.F.H.M.S.	14-104116-240
2	Mounting Gasket	38-0120831-00
2	#8 x 3/4" P.P.H.S.M.S.	15-081416-120
1	Heat Sink	64-0345497-01
2	Power Supply Bracket	07-240593-000
2	Tie-Wrap (14.5")	26-0315001-14
2	Lighthead Bracket	07-221896-000